AQUA

# 2019 Shenango Valley Division Water Quality Report
# PWSID# PA6430054

*Este informe contiene información muy importante sobre su agua de beber.*
*Tradúzcalo o hable con alguien que lo entienda bien.*

**About Your Drinking Water** -- Aqua Pennsylvania, Inc. (Aqua) is pleased to provide you with its 2019 Consumer Confidence Report for the Shenango Valley Division (public water supply ID PA6430054), which contains important information about your drinking water. The report summarizes the quality of water Aqua provided in 2019 including details about water sources, what the water at your tap contains, and how it compares to standards set by regulatory agencies. Although the report lists only those regulated substances that were detected in your water, we test for more than what is reported. This report is only a summary of our testing during 2019. If you have any questions about the information in this report, please call 724.347.7418 or visit our website at AquaAmerica.com.

**Sources of Supply** -- Water for the Shenango Valley Division comes from the Shenango River, which is fed by a 650-square mile watershed located north of Sharon, Pennsylvania. A Source Water Assessment for the Shenango River was completed in 2003 by the Pennsylvania Department of Environmental Protection (DEP). Information on source water assessment is available on the DEP Web site at www.dep.state.pa.us (enter search term "source water"). Complete reports were distributed to municipalities, water suppliers, local planning agencies, and DEP offices. Copies of the complete report are available for review at the DEP Northwest Regional Office, 814.332.6899.

**The sources of drinking water (tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.**

**Contaminants that may be present in source water include:**

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or result from oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800.426.4791.

**Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 800.426.4791.**

**Our water systems are designed and operated to deliver water to our customers' plumbing systems that complies with state and federal drinking water standards. This water is disinfected using chlorine, but it is not necessarily sterile. Customers' plumbing, including treatment devices, might remove, introduce or increase contaminants in tap water. All customers, and in particular operators of facilities like hotels and institutions serving susceptible populations (like hospitals and nursing homes), should properly operate and maintain the plumbing systems in these facilities. You can obtain additional information from the EPA's Safe Drinking Water Hotline at 800.426.4791.**

The following table lists contaminants that were detected during 2019 (unless otherwise noted) in your water system. The table provides the level found and the range of detections of regulated contaminants.

**Shenango Valley Division- PWSID# PA6430054**

| Contaminants | Level Found | Range of Detections | MCL | MCLG | Sample Date | Violation Y/N | Major Sources in Drinking Water |
|---|---|---|---|---|---|---|---|
| Total Chlorine, ppm | 2.2 | 2.2 - 2.9 | MRDL = 4 | MRDLG = 4 | 2019 | N | Water additive used to control microbes |
| Turbidity, % meeting plant performance level | 100.0% | 100.0 - 100.0% | TT | NA | 2019 | N | Soil runoff |
| Turbidity, NTU | 0.24 | 0.02 - 0.24 | TT | NA | 2019 | N | Soil runoff |
| **Inorganic Contaminants** | | | | | | | |
| Barium, ppm | 0.015 | NA | 2 | 2 | 2019 | N | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Fluoride, ppm | 0.84 | NA | 2 | 2 | 2019 | N | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| **Synthetic Organic Contaminants** | | | | | | | |
| Atrazine, ppb | 0.26 | NA | 3 | 3 | 2019 | N | Runoff from herbicide used on row crops |
| **Disinfection Byproducts**- For Haloacetic Acids and Total Trihalomethanes, the Level Found is the highest annual average of the quarterly averages. Compliance is based on a running annual average of quarterly results, not a single sample. The Range of Results lists the highest and lowest values among all individual samples. | | | | | | | |
| Haloacetic acids, ppb | 36.7 | 17.5 - 69.6 | 60 | NA | 2019 | N | Byproduct of drinking water chlorination |
| Total Trihalo-methanes, ppb | 41.2 | 20.5 - 78.8 | 80 | NA | 2019 | N | Byproduct of drinking water chlorination |
| Chlorite, ppm (distribution system) | 0.38 | ND - 0.99 | 1 | 0.8 | 2019 | N | Byproduct of drinking water chlorination |
| Chlorite, ppm (entry point) | 0.89 | ND - 0.89 | 1 | 0.8 | 2019 | N | Byproduct of drinking water chlorination |

| **Entry Point Disinfectant Residual** | | | | | | |
|---|---|---|---|---|---|---|
| **Contaminants** | **Minimum Level Found** | **Minimum Disinfectant Residual** | **Range of Detection** | **Sample Date** | **Violation Y/N** | **Major Sources in Drinking Water** |
| Total Chlorine, ppm | 0.91 | 0.2 | 0.91 - 3.95 | 2019 | N | Water additive used to control microbes |
| Chlorine Dioxide, ppm | ND (a) | 0.2 | ND - 0.16 | 2019 | N | |

a) Chlorine Dioxide used for pre-oxidation, not disinfection.

| Total Organic Carbon (TOC) | | | | | | |
|---|---|---|---|---|---|---|
| **Contaminant** | **Range of Removal Required** | **Range of Percent Removal Achieved** | **Number of Quarters out of compliance** | **Sample Date** | **Violation Y/N** | **Sources of Contamination** |
| TOC | 35 - 45 | 32.1 - 47.9 | 0 | 2019 | N | Naturally present in the environment |

b) Compliance is determined by a running annual average (RAA) computed quarterly. All of the quarterly RAAs met compliance.

Monitoring for Cryptosporidium (a naturally occurring microbial pathogen) was conducted between 2016 – 2018 under a national program that was instituted in 2009 on raw (untreated) water samples from our source, the Shenango River. Cryptosporidium was detected in 7 of 24 raw water samples, with an average count of 0.115 per liter. These levels are in the second to lowest (Bin 2) category of risk for raw (untreated) water. Our water treatment processes are designed to remove Cryptosporidium. However, since this program has detected elevated levels of this organism in our raw water; we will be instituting higher standards in 2019 to ensure the treatment process is optimized for the removal Cryptosporidium. Complete removal of all organisms at all times cannot be guaranteed. For this reason, immuno-compromised individuals (people with weakened immune systems) are encouraged to consult their doctor regarding appropriate precautions to avoid infection.

## Lead and Copper Results (Tap Samples)

| Lead and Copper | 90th Percentile | Total Number of Samples | Samples Exceeding Action Level | Action Level | MCLG | Sample Date | Violation Y/N | Major Sources in Drinking Water |
|---|---|---|---|---|---|---|---|---|
| Copper, ppm | 0.11 | 36 | 0 | 1.3 | 1.3 | 2019 | N | Corrosion of household plumbing systems; erosion of natural deposits |
| Lead, ppb | ND | 36 | 0 | 15 | 0 | 2019 | N | |

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Aqua is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your cold water tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every 5 years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWS). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. These data serve as a primary source of occurrence and exposure information that the agency uses to develop regulatory decisions. If a PWS monitoring for UCMR4 finds contaminants in its drinking water, it must provide the information to its customers in this annual water quality report. Below is a table of the results of our UCMR4 monitoring in 2018. All other contaminants tested during UCMR4 were Not Detected.

| Unregulated Contaminants Detected During 2018 | | | |
|---|---|---|---|
| **Unregulated Contaminant** | **Average Detection** | **Range of Detections** | **MCL** |
| **Raw Samples (untreated)** | | | |
| Bromide, ppb | 13.9 | ND - 27.8 | NA |
| Total Organic Carbon, ppb | 5555 | 3800 - 7310 | NA |
| **Entry Point Samples** | | | |
| Manganese, ppb | 1.27 | 0.7 - 1.83 | NA |
| **Distribution Samples** | | | |
| Bromochloroacetic acid, ppb | 2.45 | 2.21 - 3.29 | NA |
| Bromodichloroacetic acid, ppb | 4.80 | 4.64 - 5.03 | NA |
| Dichloroacetic acid, ppb | 31.08 | 25.4 - 41.0 | NA |
| Trichloroacetic acid, ppb | 61.2 | 58.3 - 63.6 | NA |

| Unregulated Contaminants Detected During 2019 | | | | |
|---|---|---|---|---|
| **Unregulated Contaminant** | **Average Detection** | **Range of Detections** | **Health Advisory** | **Violation** |
| **Entry Point Samples** | | | | |
| Perfluorooctanoic acid (PFOA), ppt | 2.8 | NA | 70 | No |

## Notes:

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

**Fluoride:** Fluoride may help prevent tooth decay for children but can be harmful in excess. Customers in the Shenango Division receive water from fluoridated supplies. This information may be helpful to you, your pediatrician, or your dentist in determining whether fluoride supplements or treatment are appropriate.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Minimum Residual Disinfectant Level –** The minimum level of residual disinfectant required at the entry point to the distribution system.

**NA:** Not applicable.

**ND:** Not detected.

**NTU:** Nephelometric turbidity unit (cloudiness of water).

**ppb:** A unit of concentration equal to one part per billion.

**ppm:** A unit of concentration equal to one part per million.

**PWSID:** Public water supply identification number.

**Total Organic Carbon:** The level reported under “Level Found” for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value greater than one indicates that the water system is in compliance with the TOC removal requirements. A value of less than one indicates a Treatment Technique violation of the TOC removal requirements.

**Turbidity**: Monitored as a measure of treatment efficiency for removal of particles. Plant Performance Level: 0.3 NTU.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.